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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,791	11/13/2001	Jean Noel Bertho	FLEC16.001AUS	4760

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EXAMINER

MCINTOSH III, TRAVISS C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 06/30/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

File Copy

Office Action Summary

Application No.

10/008,791

Applicant(s)

BERTHO ET AL.

Examiner

Traviss C McIntosh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11 and 15-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 6.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

The Amendment filed April 15, 2003 has been received, entered into the record, and carefully considered. The following information provided in the amendment affects the instant application by:

The specification has been amended as indicated by applicant to capitalize the names of the trademarks and to provide their generic terminology.

Claims 1, 5, 9, 10, and 15 have been amended.

Claims 4 and 12-14 have been cancelled.

Remarks drawn to rejections of Office Action mailed January 14, 2003 include:

Claim objections have been overcome by applicants' amendments and cancellation of claims and have been withdrawn.

112 2nd paragraph rejections have been overcome by applicants' amendments and have been withdrawn.

103(a) rejection which has been maintained for reasons of record.

The declaration filed on April 15, 2003 under 37 CFR 1.131 has been considered but is ineffective to overcome the prior-art reference. The declaration as submitted is dated 06/03/03, yet the document was received on 4/15/03. In a telephone conversation with Che Swyden Chereskin, applicant's representative, on 6/20/03 and 6/23/03, Mrs. Chereskin articulated that she believed that this was dated in the European date format, wherein the actual date of signing is March 6, 2003. However, in an effort to clarify matters and provide a clear record, the examiner would respectfully request that the document be provided in a way that there is no uncertainty as

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to exactly what the date is by using standard US date practice numerically represented by the (MM/DD/YYYY) format, or the alpha-numeric representation wherein the month is spelled out.

An action on the merits of claims 1-3, 5-11, and 15-25 is contained herein below.

The text of those sections of Title 35, US Code which are not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

The rejection of claims 1-25 as being rejected under 35 U.S.C. 103(a) as being unpatentable over Rasche et al. (US Patent 4,939,245) in view of Bertho et al. (US Patent 6,087,403) is maintained for reasons of record.

The claims of the instant application are drawn to a method of producing a solubilization adjuvant comprising: removing the light fractions which have boiling points lower than 100°C, placing fusel oils in contact with one or more reducing sugars in the presence of an acid catalyst at a temperature of between 50°C and 130°C while removing the water from the reaction medium to obtain an alkyl glycoside solution, and separating the glycoside from the solution wherein the reducing sugars are more specifically pentoses (L-arabinose and D-xylose) and/or hexoses (D-glucose, D-galactose, or D-mannose). Additionally the process is further limited when, prior to the reaction, the heavy fractions which have boiling points greater than 140°C are removed by distillation.

The instant dependent claims are also drawn to adjuvants comprising on a weight basis the specific polyglycosides in claims 9 and 10 and to compositions comprising the adjuvant

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(10% to 60% by weight) and additional nonionic, anionic, amphoteric, cationic surfactants, and/or polyglycosides containing from 8-22 carbon atoms on the alkyl chain (40% to 90% by weight).

The instant dependent claims are additionally drawn to compositions comprising from 0.5% to 5% adjuvant, 1% to 10% alkyl polyglycosides containing from 8-14 carbon atoms on the alkyl chain, and optionally: 1% to 10% linear or branched alkanols (with 2-5 carbon atoms), 0.1% to 3% lipophilic substances to be dissolved, 0.1% to 2% essential oil (pine, lemon, orange, mandarin, grapefruit, lavender, mint, thyme, rosemary, or eucalyptus oil) wherein the compositions may be a cosmetic, dermocosmetic, pharmaceutical or plant-protectant composition.

Rasche et al. teach of a method of preparing a glycoside product by: reacting an alcohol with a saccharide reactant (a monosaccharide) at an elevated temperature in the presence of an acid catalyst (column 1, line 65 – column 2, line 20) wherein a solvent is added to the mixture to aid in the removal of water from the glycoside product (column 2, lines 60-64). The preferred alcohols of Rasche et al. are disclosed in column 3, lines 13-20 wherein the alcohols can be linear or branched and contain from about 4 – 30 carbon atoms. The saccharide materials of Rasche et al. include glucose, lactose, mannose, xylose, fructose, and the like (column 3, lines 34-36). The reaction temperature is generally in the range of about 85°C to about 200°C (column 4, lines 65-69). Rasche et al. also disclose the use of their polyglycosidic products as surfactants (column 6, lines 3-8).

What is not taught by Rasche et al. is to use fusel oil as a means of a source for the alcohol in the reaction, the specific polyglycosidic adjuvants, to remove the various fractions

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above 140°C and below 100°C by distillation, nor to add the additional surfactants/oils to the compositions.

Bertho et al. teach a method of producing a polyglycoside composition comprising reacting mixtures of reducing sugars with alcohols in the presence of an acid catalyst (column 5, line 62 – column 6, line 8) wherein reducing sugars are taught to be mixtures of pentoses and hexoses (column 5, lines 39-4) and the hexoses represent about 35% - 75% and the pentoses 25% to 65% the weight of the polyglycosides. Bertho et al. also teach to optionally add other emulsifying agents, oils of plant, vegetable, or animal origin, ionic or non-ionic thickeners, hydrotropic agents, preservatives, and other common agents added to pharmaceuticals (column 6, line 31 – column 7, line 54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the various additives of Bertho et al. into the product of Rasche et al. as these additional agents are common additives in the pharmaceutical field, especially in the art of topical compositions. It would have been obvious to one of ordinary skill in the art to use fusel oil as the starting alcohol containing solution, as it is known to use alcohols in the process as claimed. The use of a known member of a class of compounds in a process is not patentable if other members of the class are known to be useful for the same purpose in the process.

Additionally, once a general reaction has been shown to be old (alcohol + acid catalyst + saccharide → polyglycoside) the burden is on the applicant to present reason or authority for believing that a group comprising the starting compound (fusel oil) would take part in or affect the basic reaction and thus alter the nature of the product or the operability of the process and thus unobviousness of the method of producing it. Fusel oil is known to comprise n-propyl

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alcohol, isobutyl alcohol, amyl alcohol (any of 8 compounds with the formula $C_5H_{11}OH$), and other alcohols in large percentages, and one of ordinary skill in the art would reasonably expect the reaction of Rasche et al. to be equally efficient and would obtain compositions consistent with those of instant application as the adjuvants as claimed in claims 9 and 10 of the instant application are the direct results of the starting fusel oil, not the known process which has been used in the art. It would have been obvious to one of ordinary skill in the art to remove the heavy fractions and light fraction by distillation prior to reaction the fusel oil to remove the long and short chained alcohols and other impurities which do not have the boiling points in the range sought. One would have been motivated to combine these teachings and provide compositions used as surfactants or solubilizing adjuvants as polyglycosides are known in the art to be effective as surfactants or solubilizing adjuvants and fusel oil is a common byproduct in alcohol fermentation which contains a range of short chained alcohols which independently are known to provide excellent glycosidic surfactants.

Applicant's arguments filed April 15, 2003 have been fully considered but they are not persuasive. Applicant's only argument to the 103(a) rejection of record from the office action mailed January 14, 2003 is that "the claimed method differs from the method of Rasche et al. in that Rasche et al. do not teach removal of water during the reaction". Applicant's point-out that "if water is not removed during the reaction, the glycosides cannot be separated from the reaction". (Page 8, first full paragraph of applicants amendment – paper #4)

However, Rasche et al. do indeed teach to remove the water, column 2, lines 60-63 state "a solvent is added to the mixture to aid in the removal of water and separation of unreacted alcohol from the glycoside product". In column 4, lines 49-55 Rasche et al. teach that "it is

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important in the process of the present invention that the amount of water in the reaction mixture be maintained at a relatively low level. If the amount of water in the reaction mixture becomes high, the saccharide reactant can form a syrup phase which is undesirable and promotes the formation of color bodies and polysaccharide materials". Further, Rasche et al. note that if the saccharide utilized in the process is in the form of a solution in water or a solid containing water of hydration, the saccharide can be first mixed with the alcohol. The mixture of the alcohol and the aqueous or water containing saccharide is then heated to an elevated temperature under a reduced pressure to remove the water from the mixture and provide a mixture of the alcohol and the solid or undissolved saccharide reactant having a low water content. The reaction mixture should contain less than about 1.0% by weight water, preferably less than about 0.5 by weight water, ~~more preferably less than about 0.25% by weight water and most preferably less than~~ about 0.1% by weight water.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

~~A shortened statutory period for reply to this final action is set to expire THREE~~ MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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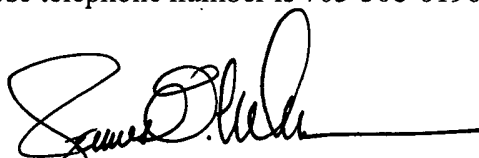
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Traviss C McIntosh whose telephone number is 703-308-9479. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 703-308-4624. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Traviss C. McIntosh
June 25, 2003



James O. Wilson
Supervisory Patent Examiner
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